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ABSTRACT

Ten major elements in developing a curriculum to prepare students to face future challenges and problems are outlined. One, mastery and understanding of technology, should focus on the use of tools and machines with an emphasis on problems related to technology in our lives. Two, cooperative living skills, can be achieved through classroom meetings, cooperative approaches to learning, and parent effectiveness training. Three, basic survival skills, includes cooking, nutrition, preventive medicine, child rearing, and consumer awareness. The fourth element considers the complexity of career options. Areas five, six, and seven concern skills such as self-directed learning, creative problem solving, decision making, and communication skills. The final three elements focus on present issues-oriented education, moral education and humanistic education. The conclusion is that schools should embark on a long-range planning mission intent upon gradually introducing new ideas and skills systematically. (KC)

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Dare We Build a New Curriculum For A New Age?

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Dare we Build a New Curriculum for a New Age?

It is becoming increasingly clear to me, as I visit many schools, that schools are failing to create adequate new programs to deal with the changing world around us. Massive changes have taken place in the world in the last fifty years, including supersonic flight, nuclear power, massive uses of electricity and other forms of energy, changing worldwide cultural patterns, massive career changes, television, multinational corporations, changes in the family, global interdependence, conquest of disease, space explorations, biological advances, birth control, and so on. Important changes are predicted for the future, and, although no one knows for sure which may occur, changes such as the possibility of unlimited energy supplies, space colonization, new forms of communications, anti-aging pills, telepathy, and so on, are within the realm of possibility.

In spite of these massive changes, schools basically teach as they did when they were initially created and, while the sixties produced attempts at innovation and change, there is apparently a trend back to a more "basic" education, with more traditional reading, 'rithmetic and writing. Recent articles indicate that there are trends back to more basic grammar courses and more traditional, "wholesome" reading. In some cases, books are being censored if they are considered "progressive" or "innovative".

There is no doubt that there is much that is good in traditional education, but I believe that part of the reaction to changes in schools results from lack of careful consideration of what schools should be doing in this new age. Schools in the sixties innovated to move away from traditional, regimented educational approaches. <u>But I believe that it was not clear what they were moving towards</u>. There was (and still is) a lack of long range goals and a clear set of purposes for preparing children to live in their future world. Schools often became less rigid and more humane, but they failed to develop a rationale to explain what is important for today's educated child.

The important question for todays' schools, I believe, is to define what schools should be doing to prepare children for living in their future world. In previous societies, the answer to this question was more obvious. In hunting societies, children were apprenticed as hunters. The world was simple and generally unchanging, and people were prepared for traditional roles. Education served to teach children their heritage, their work roles, and their

society's symbols and rituals. In more recent pre-industral societies, children learned basic literacy and communication skills in schools, while the outside world of home and community took on the role of preparing most children in work, spritual and moral matters.

Today's complex world has changed all that, and it has become unclear as to the purpose of school-based education. I believe that the schools cannot adequately prepare children for their future world by solely focussing on basic literacy and communication skills. We are in a time of such rapid change and of such demanding problems that it is imperative for schools to build a "new curriculum" that systematically teaches children the knowledge and skills necessary for them to deal with and cope with the world in which they will have to live.

I believe that there are ten major ideas that can form the basis of a new school curriculum. These ideas suggest knowledge and skills that students need as they face the challenges of a rapidly changing technological society. A basic problem is to use these ideas develop a curriculum that will help students face the challenges and problems in the coming years, and also will help students develop a fuller, effective, satisfied life. First, I will attempt to outline these ten major ideas, and then suggest ways that schools can systematically incorporate these changes into their curricula plans.

Idea I: Technological Mastery and Understanding

We have entered a revolutionary, complex technological age. It is important for students to become familiar with the workings of tools and technology in order to live in this age. Yet most people are technological illiterates. They learn very little, if anything, about how machines work. They are not prepared to use machines and tools. They often do not feel comfortable with machines.

It is quite possible for the schools to systematically provide students with technological mastery skills. The use and understanding of tools and machines should become a regular, on-going part of the school curriculum.[1]

An additional emphasis should be placed on questions and problems related to the role of technology in our lives. Serious questions have been raised by many experts on what the role of technology should be. Some believe that we must limit the role of large-scale technology if mankind and the environment are to survive. Otherwise they forsee an ultimate collapse of the world order

due to lack of raw materials and strains from overproduction and too much massive technology. They tend to emphasize the use of more limited, "appropriate" technology that emphasizes human labor and meaningful work and that doesn't put an enormous strain on the environment.[2] Other experts believe that massive technological improvements will both allow us to continue our technological way of life and lead to significant improvements in the environment. They emphasize continuation of work in major technology projects that will bring greater prosperity both to ourselves and the whole world.[3]

This dilemma is of the utmost importance, for on its resolution hinges the lifestyles and fate of billions of people. It is important that this question be considered as a central dilemma of our time.

Idea II: Cooperative living

There is an ever greater need for students to learn ideas and skills to help them live cooperatively together. Mankind has developed increasingly complex problems that to solve will require cooperative problem-solving on a global scale. Pollution and environmental dilemmas are now a world-wide problem. The arms race is a serious menace to survival, and I believe will become an increasingly difficult problem. Transience and mobility in our own society have made it more difficult for people to work cooperatively together, and become an integral part of a community.

It is important for students to learn skills to help them become part of a cooperative community problem-solving effort. Cooperative living also means learning to share with others in the celebrations, joys and difficulties of life. People must also learn skills to help them deal with personal conflicts, and this ability to solve conflicts help them to learn to live together peacefully and harmoniously.

Schools can prepare students for cooperative living in many ways. One is to develop school communities based on cooperative living. More and more I am finding that school personnel do not consciously promote and create cooperative school communities so as to help students use cooperative living skills. More often than not teachers do not have the skills to develop cooperative learning communities in their classrooms. In addition, a school curriculum can be developed that helps people learn specific skills for cooperative living, such as classroom meetings,

cooperative learning approaches, parent effectiveness training skills.[4] Rarely are skills related to cooperative living explicitely taught as an ongoing part of the school curriculum.

Idea III: Basic Survival Skills

Because of recent changes in American Society, many Americans have lost touch with some very basic skills that are at the core of one's ability to survive. These skills are quite varied, ranging from ways to grow food to developing physical and mental health. Many of these skills are currently enjoying a renaissance, and there are more people growing gardens, jogging, meditating, and generally using basic survival skills. I believe that schools must develop the means to incorporate knowledge and skills in these and other areas on a regular basis. The curriculum should include cooking, nutrition, preventive medicine, physical fitness activities, gardening, mental health needs, parenting and child-rearing, developing positive self-esteen, consumer awareness and learning to cope with emotions and feelings. These skills may become even more important if we need to develop simpler life styles because of technological problems and dilemmas. They are also extremely important for poorer and uneducated people who can use these survival skills to cope with daily conflicts and problems.

Idea IV: Developing Life Options

American society once circumscribed, as did other societies, a limited number of life options and choices. Today, career options are complex and growing more complex. In 1977, the Dictionary of Occupational Titles compiled information on 20,000 separately defined occupations. Many individuals are asking themselves the question: what kind of life do I want to lead? Where do I want to live? What do I want to do with my life? People are making many different choices. Some opt for long working hours and see this as their sense of fulfillment. Others opt for jobs that pay them enough so that they can live simple lives in supportive communities. Still others opt for part time careers as they raise families, do volunteer work, an so on.

Career and lifestyle choices are changing. Many careers require new skills, some of which have not even been developed yet. Ten years ago teaching was a wide open profession, and today it is difficult to find a teaching job. Alternative lifestyles have developed in recent years to

include communal groups quietly living together across the country in farms and cities. The single lifestyle is increasingly attractive to many, as is late marriages and fewer children.

Such changes are in some ways revolutionary, for they affect the very foundation of society. Yet little is usually done in school to prepare students for career changes and choices. Students are prepared for life options when schools provide information and skills to make life option choices. I believe that schools should systematically embark on career and lifestyle information and skill teaching in order to help students understand many of the choices they will face.

In addition to providing career and lifestyle information, schools should also focus on helping students learn goal-setting skills. Students can focus on such areas as developing long and short range goals, exploring obstacles and consequences, making realistic goal decisions, and planning and thinking about their choices and their futures. These skills will aid them as they plan for their careers and their lifestyles.[6]

Idea V: Self-directed learning

Increasingly, people need to learn greater amounts of information and skills in our fast-moving, changing society. Toffler points out that the amount of information available to us today has increased so enormously as to dwarf the imagination.[7] Technical knowledge is infinitely more complex today, and will become more complex in the future. Careers and jobs are changing and flexible. People have to adapt to new situations. More and more, people have to become "life-long learners". It is important to teach people how to learn as well as to teach them knowledge and skills. The school's role today is not only to provide the foundations of learning in many areas, but also to teach people skills so that they can learn on their own.

Ideally, schools should operate so that they are almost out of business when students graduate. Students in their senior year should, with the aid of teachers, embark on their own learning. They should, by that time, have developed self-directing learning skills that enable them to learn most things on their own and cooperatively with others. They should have developed an enjoyment for learning. They should know how to ask important questions to define problems, to seek out information, to get help when necessary, to develop creative solutions and tentative answers to questions, to deal with the frustrations of lack of "instant" solutions,

and so on.

Alas, it has been my experience that schools generally do not function in this way. In fact, it appears that in many high schools students are given less opportunity to learn on their own.

I believe that schools should embark on developing a systematic curriculum in which students practice and learn self-directed learning skills. In addition, the school environment should allow students to be able to become more self-directing as they progress through their school experience.

Ideal VI: Thinking, Creative Problem-Solving and Decision Making Skills

One of humankind's greatest assets has been and is the ability to think and reason, to solve problems imaginatively, to create and explore choices. For example, inventions have been developed to advance humankind and solve important dilemmas. Scientific solutions have advanced the cause of medicine, communication, transportation and many other fields. Individuals have resolved countless human dilemmas through their thinking powers.

Schools, however, often neglect the development of these skills that become especially important in our complex, changing society. For example, I believe that students should more than ever deal with present and future problems as a priority in their educational experience. Every American history course should begin with a serious study of present day America and its problems, as well as future forecasts and scenarios. The study of the past then becomes important for a greater understanding of how present day problems emerged. The past also provides students with examples of experiences that help promote solutions for present day situations (example: the study of past wars and the reasons for wars can help students understand and develop ways to prevent future wars). History becomes a living opportunity to continually focus on present and future.

Another way of developing these skills is through the continual presentation of dilemmas. History as well as current issues provide the basis for the use of case studies as dilemmas to focus students' thinking on important issues and to develop decision-making skills. The American Revolution, for example, provides a wealth of potential dilemmas reflecting concern with basic freedoms, war vs. peace, movement to a new place, and so on. A greater use of puzzles, problems, creative thinking devices, and so on can also aid in the development of these skills.

Increasingly, skills in thinking, problem-solving and decision-making can aid students in dealing with present-day and future problems. Thinking in terms of relationships, for example, can help students see relationships and connections between many events. Students begin to think in complex ways, and see how events affect many people in many different ways. This "systems" approach to thinking is helpful in today's complex world.[8] Students can also learn to examine alternatives and consequences, to brainstorm, and to generally use complex decision-making skills to help them make viable choices among alternatives.[9] Students can learn to use their imaginations creatively to solve difficult problems.[10] These are just several examples of the many skills that can be developed in a thinking, creative problem-solving, decision-making school focus. Note, however, that they develop less well if they are not systematically developed over time and in many different ways.

Another important set of skills related to this area are more difficult to incorporate but equally as important. In our world of change, it is necessary to anticipate how the decisions we make will affect not only us but future generations. Today, time and time again, we are confronted by problems that would not have occurred had an original decision been thought through to its logical conclusions. Anticipatory decision-making and problem-solving skills require people to carefully look at complex consequences and relationships to decisions that are made, and select those solutions which are most likely to provide the greatest benefits for all. Although it is impossible to accurately predict and forecast all the ramifications of a given decision, we can begin to understand the complex consequences or potential effects of a decision on the system it will affect. What, for example, is the effect of continued production of large cars? Perhaps if we had been able to anticipate the effects of many of our decisions ten or twenty years ago, we would not be facing some of the critical problems we are facing today. <u>The ability to anticipate may ultimately be one of the most critical skills of our time</u>.

These skills should be a continual thread in school learning. Mathematics can be used to promote thinking and problem-solving. Students can think, problem-solve, and make decisions through the use of a number of curricula programs designed to promote their use.[11] The on-going curriculum can promote the development of these skills when teachers begin their programs

by raising questions, asking students to classify and categorize, developing dilemmas, using experiments, and so on.

Idea VII: Communication

Schools generally foster the development of communication skills, especially reading. However, our society has entered a phase in which there are multiple sources of communication, and I believe that the schools do not adequately emphasize the ability to use these other communication sources.

First, textbook reading is only one kind of reading, and schools do not often stress others. Newspapers, for example, are a major source of information today. Schools should promote the reading of newspapers, especially critical newspaper reading. Magazines are additional important sources of information, and schools should familiarize students with diverse magazine sources.

Second, communication often occurs through writing, still an important part of one's ability to communicate. Writing is an important part of a good language arts program. It helps students to not only learn an important communication skill but also helps them to clarify their thoughts and ideas and to communicate them. Writing should be encouraged and promoted as part of a systematic school program.

Audio and visual communication are also important. Television is a source of communication for millions, and schools can help students maximize their thinking and learning from television. Movies are important information and entertainment sources. Literacy, I believe, is the ability to find ideas and information and communicate ideas and information through multiple media and other sources. The use of a broad range of resources reflects the real world of learning and communications.

Interpersonal communication skills are also important. Students, in our increasingly mobile world, will come into contact with many different types of people, and it is important that they learn skills to work with, deal with, and communicate with others. Learning to listen to others, to digest information, to "hear" thoughts and feelings, to express one's own thoughts and feelings and be heard, to analyze thoughts and feelings, to negotiate and solve problems together--these and others are important interpersonal communication skills.

Idea VIII: National and World-Wide Citizenship: Present Issues- Oriented Education

Being an active citizen in today's world is often very difficult. The "bigness" of government, the feelings and frustrations of perceived powerlessness,

the lack of concern, and the lack of skills all make it very difficult for people to participate in the decision-making processes that significantly affect their lives. Newman, et.al. defines citizenship as the "...ability to exert influence in public affairs".[12] Ultimately, this ability requires knowledge and skills that are complex and wide-ranging. Knowledge about public issues is important. The ability to think, reason, decide, and create are useful. Cooperative skills that help to organize others with like thoughts are helpful. Skills that aid in learning ways to act in the political arena are important. In today's world, it is important for citizens to participate effectively so as to maintain control over the political processes and decisions that are crucial in a changing, complex world. We can no longer afford to have two-thirds of our citizens not even minimally participate in the political process (through voting) if we are to resolve our pressing national and international problems.[13]

Current issues and events should, I believe, become a much more important part of schooling in today's world. Issues on community, state, national and international levels should become important topics of learning on a regular basis. Issues today are numerous and complex, and require considerable time for learning. Students need to learn in some depth about democratic political institutions, including constitutional government, representative democracy, pressure groups, etc. They should learn about individuals and groups who have made a difference in the political arena (there are numerous examples of citizens who, individually and in small groups, continue to make a difference in the passage of laws and governmental operation).

In many diverse and systematic ways, schools have to create programs for educating students for basic citizenship. Knowledge of current issues and problems as well as the realities of democratic processes are two important areas. In addition, students need to learn to think and reason. They need to themselves practice participation in the "real world" through such diverse activities as letter writing, field trips, political speakers, and even apprenticeships with organizations so that they can gain a first hand experience of real world political issues and dilemmas. These are extremely important areas for school learning in today's world.

Idea IX: Value--Moral Education

Increasingly, critical value and moral issues and dilemmas are being

confronted by millions around the world. Greater communication and mobility among world citizens have increased contact with other peoples, other cultures, and world events. Values issues have increasingly been raised from such contacts and communications. Many become confused because they are exposed to so many different belief systems. Scenes of war, death and destruction, joys and sorrows of others are being instantly brought into the living rooms of millions. It is no longer easy to believe in a single set of values with unquestioned faith, in light of scientific discoveries and cultural diversity.

In addition, the complex world situation and problems leads to many moral and value dilemmas. Should economic growth be reduc d at the cost of jobs but with greater priority for our environment and the potential for simpler, more equal lifestyles over a longer period of time? Should the United States reduce its share of world riches in order to create a more just world? What should be done about millions of children who do not eat well enough to survive and prosper? Should individuals reduce their material possessions in order to help others? Should previously discriminated against groups now received preferential treatment through affirmative action programs? Questions related to justice, equality, diversity, human rights conflicts, and so on are increasingly difficult to resolve and have become familiar to millions in our more complex, changing world.

There are now educational activities and programs for dealing with value and moral issues that do not presuppose "right" answers, but help students learn skills for making such judgments.[14] Value clarification exercises help students learn skills to help them sort and rank their values, make choices, and explore the consistency of their actions as related to values.[15] Value clarification ideas are based on the need for open discussion, critical thinking, rationality, free choice, justice, creativity, and equality.[16] Value clarification educators stress helping people develop a clearer sense of their own values and learn skills to help them continually clarify their values. Moral educators suggest that dilemma situations can be used to help students use higher stages of moral reasoning as they deal with moral issues.[17] They also suggest discussions and other methods for helping students explore issues of "justice" and a "just community", in order to help them reason at higher stages of moral reasoning.[18]

It is, I believe, important that dilemmas and other strategies be used to help students learn ways to clarify their own values and enhance their ability to morally reason in our confusing world.

Another, perhaps equally important part of a value-moral education today is the exposure of students to value models that students can admire. It is increasingly difficult for students to find people whom they admire. The media tends to emphasize negative models, and students do not often hear about the millions of unsung heroes who act with honesty, warmth, love and kindness, actions and support for others, etc. In informal discussions with students, it is increasingly noticeable how students have difficulty in suggesting people they admire or whom they would like to emulate.

I therefore believe that it is important for schools to expose students to a variety of models--people who, in one way or another, exhibit the best qualities of human thought and behavior. These models can include ordinary workers, scientists, doctors, humanitarians, political figures, those who have committed acts of bravery, those who, despite difficult odds, have achieved something exemplary in their lives. The models should not only include "famous" people but also ordinary people who in some way contribute to others and to society. I have found that it is possible to find examples of those models in newspapers, magazines, and in every town and city in the country. They exist as farmers, bankers, researchers, and people in every walk of life. They are the volunteers, the thinkers, the concerned, the honest -- those with qualities that make up the best in the American spirit.

Idea X: People matter

There is a growing and heartening trend in this and many countries towards valuing the importance of each individual. It is most fundamentally seen in changes and liberations in this country. It is found in much smaller measure in the dissident movement in the Soviet Union. In many countries, even communist countries, a growing liberalization trend can be found.

In a world with incredible weapons of destruction and potential technology for control, the assumption of the dignity and value of all human beings is critical if we are to successfully live together in a world of peace and harmony. I take the position that unless we in the world all learn to care about each other, to live together and share, eventually none of us will survive. The development of a minimum worldwide material standard as well

as the ability of people to find meaningful work and develop a sense of dignity is an important and feasible goal (if we wish to make it so).[19]

Another significant assumption in a "people matter" attitude is the belief that people can make a difference in what happens to themselves and to others. We need to believe that we can influence the course of events and change trends and patterns of human existence. If we believe this, then we will act on our belief and probably make a difference. There are countless examples of individuals who believed they could make a difference and eventually did so.

Still a third assumption in a "people matter" attitude is that people can share and learn from each other. The spirit of scientific inquiry presupposes an openness to communications, a search for the truth, and a concern with scientific evidence and human values. We need to continually encourage these attitudes and assumptions.

Schools can foster these attitudes in many ways, some of which have already been mentioned in other sections. We can create schools in which students matter by, for example, allowing students to have a say in what happens to them in school. Schools can foster an attitude of caring and helping. Schools can also foster a people matter attitude when students are allowed to give opinions, test their ideas, be different, draw different conclusions from those around them. Teachers who listen, accept differences, tolerate diversity tend to support these attitudes. Finally, a curriculum that allows for experimentation, for diverse points of view, for discussion and debate, for dilemmas without "true" endings --- all of these curricula approaches create the spirit and attitude that people matter, and support a spirit of hope that we can solve our problems together.

What Schools Can Do -- Some Examples

An adequate school curriculum, I believe, must incorporate these ideas and teach to them in systematic ways. Students can become competent in dealing with technology, in living together cooperatively, and so on, if schools systematically attempt to develop programs for future living. To do this, school leaders must embark on long range planning to develop systematic curriculum programs, with clear cut goals designed to prepare students for future living. Some examples of ways to do this based on the ideas presented here, are the following:

1. Schools can develop many ways to foster cooperative living. The classroom and school environments can support helping relationships, learning from each other, and working together on a regular basis. Classroom meetings can be incorporated into the daily curriculum on a regular basis for solving problems and conflicts peacefully. At each grade level, shared learning and doing experiences can be included in the curriculum. Attempts can also be made to create a school community, with discussions of school issues on a regular basis. I believe that shared learning and preparation for future living can best be developed when there is an attitude of cooperative living and learning, and that the development of this attitude should be a priority of school programs.

Several other ways can foster cooperative learning. Students can work in the community with others on a cooperative basis. The school can attempt to bring parents, senior citizens and others into the schools to help students and provide volunteer time. Adults can share their experiences with children. In some cases, adults may want to come into the school as learning partners in order to complete their high school diplomas.[20] These approaches can provide an "apprenticeship for life" in cooperative living so often missing from the school curriculum and program.

2. Technological mastery can occur if the curriculum emphasizes the use and examination of tools and machines throughout the grade levels. Arts and crafts projects in the lower grades help give students a feeling of mastery of their technological environment, but even more than that, projects involving the use of tools can help give students a feeling of mastery. Building blocks and other building activities, such as with the use of erector sets, can help give students an understanding of technology. The intermediate grades can be a time for exploration of electrical machinery, such as radios and televisions. Inexpensive electronic

kits are now available to help children to learn about technology, and these can be obtained from major retailers. Students at all grade levels can take field trips to construction sites, electronic assembly plants, and so on, to learn more about the use of technology and tools. In the upper grades, shopwork in wood and metal work, as well as courses in auto and household repair can become an integral and important part of the school curriculum.

Throughout all grades, scientific understanding and experimentation can provide a basic understanding of the physical and biological world around us, along with the skills for inquiry, problem-solving and decision-making. Many science programs are currently designed to foster basic knowledge and scientific skills. Students in the upper grades especially can focus on scientific and technological dilemmas that are a major part of our changing society. Technological, biological and environmental issues are just some among many issues that science and technology have produced in recent years.

3. I believe that the middle grades are an ideal and important time to focus on life options in depth. Students at this age are approaching adolescence and are capable of exploring occupational and lifestyle options that raise questions about their own meaningful lives. Career options should be a central part of this curriculum. Students can move into the world of different lifestyles and careers through field trips, films, discussions, reading and so on. In a school that I know, students spend a week with parents or other adults "on the job". They interview workers, keep diaries of what they do, take photographs if possible. Teachers visit them and photograph them in action. When the students return to class, they share their experiences and the teachers conduct a variety of activities related to their experiences. More of this type of field experience can and should, I believe, occur in the middle grades.

In addition, students can systematically explore the skills needed for different jobs and for planning for different jobs. Students can learn how to set goals, how to organize their time, how to begin to plan for reaching goals, how to realistically assess their interests and abilities, how to think about their career choices. They should be exposed to a variety of career models, and should consider the worthwhileness of all work and its contributions to society (unfortunately, there is a tendency in our society to negate the important contributions many people make who work with their

hands or provide unskilled labor to our society. We could not exist without them!).

4. The middle and upper grades are also an ideal time to focus on many of the dilemmas and issues of life. These dilemmas are designed to begin to help students clarify their values and focus on moral issues. Although dilemmas may be presented in the primary grades, it is in these middle grades that students are usually preparing to deal with these issues in meaningful ways. Life dilemmas concentrated during the middle grades can help prepare students to answer questions about themselves and their values.

These grades are also a good time to expose students to models of individuals who have made worthwhile contributions to society in many ways. People who are admired for their honesty, wisdom, courage, perseverance, dedication, and so on, can be explored with students. Such models include both prominent figures and citizens who quietly go about their business. Many varieties of activities can be used, from readings to field trips to interviews. This is an important part of a child's growing years experiences.

5. Throughout the grades, I believe that there should be a greater focus on survival skills. For example, there has been a great deal of work recently done on preventive health and medicine, especially in the areas of nutrition and physical and mental fitness and health. Students should learn the latest information in these areas and practice good health habits in schools (for example, this means that no junk foods should be served in schools). Students can learn various practices to aid them with mental and physical health programs, such as simple meditation techniques, jogging and other regular exercise programs, etc. Contacts with parents should be made to inform them of the latest health information. Cooking can be an exciting, on-going school and classroom activity designed to foster basic skills and teach nutrition.

Schools can help prepare students with other survival skills. A systematic consumer awareness program can be developed, helping students learn such skills as understanding advertisements, learning how to look for best buys and quality merchandise, exploring wants and needs. A gardening program that includes growing foods can be a strong curriculum addition, especially in non-farming areas. It is usually possible to find empty lots, areas of back yards, etc. that can be put to productive food use. Planting gardens provides students with important skills and at the same time with healthful, productive work that has tangible rewards.

Survival depends on many factors, and two additional important ones are the ability to feel good about oneself and the ability to solve interpersonal conflicts productively. Schools can foster the development of both of these by supporting individuals as they learn, providing relevent curricula, providing realistic expectations, and helping students learn ways to solve problems productively. Continual conflict resolution through small and large group discussions can help develop these skills. In high schools, students can learn parenting skills so that as parents they can have some understanding of the child development process and can help their own children become better able to survive in a changing, complex world.

Finally, students should learn a variety of crafts and other leisure time activities. With greater leisure, students can learn productive projects that they can do and learn ways to make good use of their spare time.

6. Consciousness of the world around us is an important part of a school program. In an increasingly interdependent world, issues vital to the peace, well-being and security of our democratic way of life are continually of interest to an educated citizenry. Throughout the grades, the curriculum should systematically focus on important world issues. For example, the younger students could concentrate on learning about people and customs around the world. During the intermediate grades, the newspaper and magazines should become an on going everyday part of the school reading curriculum, with discussions about world issues and events. Students can become pen-pals with others, conduct UNICEF drives, learn about the problems of others learn about men and women who have contributed to political decision-making. The social studies curriculum can develop a major focus on current and potential future issues, and the scope and sequence of the curriculum can be developed to help explore these issues. Problems of city life, for example, can be used as a stratging point for study of the city. As part of this program, students should learn about the workings of government, political rights, and so on.

Newmann has recommended that the school help students learn to participate in government through active participation in the high school.[21] I believe that active political participation should be practiced in high school, and that students ought to spend part of their school years in some type of apprenticeship. In their final years in school, especially in their senior year, a major effort should be made to focus on current and future issues, both on global and personal levels.

7. Throughout the entire school program emphasis should be placed on learning to think, reason, creatively problem-solve and become self-directed learners. Students should have the opportunity to systematically, over time, practice self-directed learning skills. In the primary grades students can work at learning centers and on independent projects. "Sustained Silent Reading" helps students make choices and select their own reading. Contracts can be used to foster independence. As students progress through the grades, the curriculum can help students practice specific skills for research and working on their own, such as library skills, asking questions, summarizing, evaluating, working in small groups, and so on. As students progress through the grades, greater time should be spent with students doing self-directed work. This approach presupposes a curriculum geared to helping students gradually develop self-directed skills for life-long learning, with continual monitoring and assessment.

The curriculum also should include many opportunities for solving problems and thinking. Many opportunities can be built into the school curriculum to support this, such as twenty questions games, puzzles and problems, dilemmas, a focus on questions and research, brainstorming, using analogies, and so on. Schools should make a concerned effort, I believe, to develop the best thinking in students, for in tomorrow's complex world it will be our ability to think and reason and creatively deal with problems that will help us to provide a decent quality of life for all citizens.

Schools are not the end-all, be-all of learning. But in our changing, complex world, fraught with many problems, schools can take leadership in providing knowledge and skills to prepare students for future living. The changes that have taken place in the world around us should be reflected in a new curriculum approach to schools, one that takes into account the changes and sytematically provides students with knowledge and skills to prepare students to live in the world of tomorrow. I believe that a school that develops a "people matter" atmosphere, with caring and sharing, with openness of opinions and respect for one another, is a prerequisite for any future living program. Beyond that, schools can develop general and specific skills and knowledge such as in the areas outlined above, to prepare students for the world they will face.

However, in order to do this adequately, schools should embark on a long range planning mission, intent upon gradually introducing new ideas and skills systematically over time.[22] Change does not occur quickly, but change can be planned and developed. I believe that these ideas and skills are durable and will be necessary not only now but ten years from now. I envision students graduating from such a program with a greater capacity to take a part in today's and tomorrow's world, and I envision a world with greater justice and material progress for all if its citizens are capable of governing themselves and dealing with world problems and issues. The schools have an important role to play. Dare we build a new curriculum for a new age? I don't think we can afford not to.

1. The T4C (Technology For Children) program was developed in New Jersey with this goal in mind. See, e.g. Elizabeth E. Hunt, A Theoretical Base For The Technology For Children Projects, paper delivered at the American Industrial Arts Association Convention, Tulsa, Oklahoma, 1965. Published in the AIAA Proceedings.

2. See E.F. Shumacher, Small is Beautiful: Economics as if People Mattered. New York: Harper and Row Perennial Library, 1973.

3. See Herman Kahn, The Next 200 Years. New York: William Morrow and Co., Inc., 1976.

4. See William Glasser, Schools Without Failure, New York: Harper and Row, 1969; also Thomas Gordon, Parent Effectiveness Training, New York, Wyden Press. 1964; See also Terry Orlick, Winning Through Cooperation, Washington D.C.: Hawkins and Associates (Acropolis Books, Ltd.), 1978.

5. Dictionary of Occupational Titles, Fourth edition. U.S. Department of Labor, Employment and Training Administration, 1977.

6. See, for example John C. Crystal and Richard N. Bolles, Where Do I Go From Here With My Life? Berkeley, CA., Ten Speed Press, 1974.

7. See Alvin Toffler. Future Shock, New York: Random House, 1970, pp. 30-31

8. See, for example, John W. Thomas, Making Changes: A Futures-Oriented Course in Inventive Problem-Solving; Philadelphia: Research For Better Schools, 1977.

9. See, for example Dana G. Kurfman, editor. Developing Decision-Making Skills. Washington, D.C.; 47th Yearbook. National Council For The Social, 1977.

10. See, for example, Sidney J. Parnes, Ruth B. Noller and Angelo M. Biondi, Guide To Creative Action New York: Charles Scribner's Sons, 1977.

11. See, for example, Martin Covington, Richard Crutchfield, et al., The Productive Thinking Program Columbus, Ohio: Charles E. Merrill Publishing Co.

12. Fred Newmann, Thomas Bertocci, and Ruthanne Landsness, Skills in Citizen Action. Madison, Wisconsin: Citizens Participation Curriculum Project, University of Wisconsin, 225 N. Mills St., 53706.

13. In the last presidential election only 1/3 of the potential voters actually voted. These figures are often much lower in primaries and local elections.

14. See Louis E. Raths, Merrill Harmin and Sidney B. Simon, Values and Teaching, Second Edition. Columbus, Ohio: Charles E. Merrill Publishing Co., 1978.

15. See Sidney B. Simon, Leland W. Howe and Howard Kirschenbaum, Value Clarification: A Handbook of Practical Strategies For Teachers and Students. New York: Hart Publishers, 1972.

16. See Howard Kirschenbaum, Advanced Value Clarification. LaJolla, CA.: University Associates, 1977, pp. 12-13.

17. For example, see Lawrence Kohlberg and Elliott Turiel, "Moral Development and Education", in Gerald Lesser, ed. Psychology and Educational Practice, Glenview, Ill.: Scott, Foresman and Co., 1971.

18. See Howard Muson, "Moral Thinking, Can It Be Taught?", in Psychology Today, February 1979, vol. 12 No. 9, p. 48.

19. See Aurelio Peccei, The Human Quality, Elmsford, N.Y.: Perganon Press, 1977.

20. This type of school was successfully developed by the Office of Affective Education in Philadelphia, called The "School For All Ages".

21. Newmann, et.al. op.cit.

22. Elliott Seif, "Planning Schooling For Future Living", in Educational Futures: Sourcebook I. Washington, D.C. World Future Society, 1979 (in press).